

THE GARDEN STATE

CATERERS TO ADORNMENT

Tremendous Annual Output of Plants and Flowers Accounts for \$33,000,000 Income in Jersey, National Leader in Production of Cut Roses and Home of World's Largest Growers of Orchids and Indoor Azaleas

By JOHN T. CUNNINGHAM

Acres devoted to mockorange plants exclusively in a central Jersey nursery are harvested by the truckload.

ORNAMENTATION is for the ages—as sophisticated and historic as blossoms bedecking Cleopatra's barge, as fresh and timely as a corsage for the Junior Prom. Still, ornamentation can merely enhance natural beauty, be it the sultry charm of a Cleopatra, the sweetness of Sixteen in the spring, or—to be more down to earth—the handsome lines of a brand-new house.

Natural beauty might well look to New Jersey—and for the looking each year get two million orchids, two million azaleas, 25 million roses, millions of tender indoor plants, millions of hardy outdoor evergreens and shrubs. This ornamentation adds up in New Jersey to 33 million dollars annually, an adornment which looks mighty good in the agricultural ledger.

Whoever judges New Jersey by the sights and smells of Hackensack meadows must lend an eye and a nose to these facts: The world's biggest grower of orchids is in Middlesex Borough, the world's biggest grower of indoor azaleas is in East Rutherford, the Madison-Chatham-Summit area produces more cut roses than any other region in America, and, finally, no United States firm produces more indoor plants than a greenhouse range in Rutherford.

FLOWERS long have been important to the Garden State economy, even back in the days when the only people who could buy orchids and roses were either the self-selected 400 of New York society or the wealthy (and far more numerous) unchosen like Diamond Jim Brady. In 1955 an orchid is reasonably close to every pocket-book—but it's a safe bet that a low-priced orchid means every bit as much to the junior class sweetheart as the exorbitantly-high bloom did to Lillian Russell.

But the most spectacular story in ornamentals is not corsages or success wreaths or holiday plants. Rather, it is the outdoor nurseries, whose growth since World War II has been nothing short of stupendous. Thousands of acres of nurseryland, found in many parts of New Jersey, supply incredible numbers of hardy outdoor plants for the enhancement of homes, industrial buildings and modern highways.

The rise of ornamental horticulture in the past decade deserves Hollywood-type adjectives—colossal, and all that sort of thing. Harken to figures: In 1944 ornamental horticulture meant 10½ million dollars to New Jersey agriculture; in 1954 that total had spread to 33 million dollars—more than treble. And, bear in mind those are wholesale, not retail, figures. Only poultry and eggs have had a more spectacular growth, and, signifi-

This is the 12th in a series of articles on New Jersey's highly diversified agriculture, vigorous and growing despite the constant inroads of industrial and residential development. Next week: Farm Forestry.



Azaleas growing in one of the big East Rutherford greenhouses of Bobbink & Atkins, world leader with over one million plants yearly.

cantly, poultry fell off in 1954 while ornamental horticulture kept climbing.

NO ordinary farmers are these caterers to adornment. For one thing, a good portion of them live in glass houses. New Jersey greenhouse glass covers 13 million square feet—and that's pane enough to roof over all eight baseball parks in the American League or enough glass for 40,000 ordinary homes (with picture windows yet).

For another thing, beauty is a changing thing, and adornment—particularly floral adornment—must change with it. Thus greenhouse men are ever busy with new varieties, ever seeking the new type rose or orchid or azalea or potted plant that will sell a million and then some. The man who rests today with yesterday's variety will be dismantling his greenhouse tomorrow.

The search for new plant varieties has gone on throughout the world for centuries, but the first systematic effort in America to seek botanical secrets took place in 1786—in what is now Jersey City. It took a special act of the State Legislature to permit the sale of 30 acres to Andrew Michaux, celebrated French botanist.

Mr. Michaux chose an "elegant spot" overlooking the Hudson River; within a year his 30 acres included "a universal collection of exotic as well as domestic plants, trees and flowers." Fashionable New Yorkers flocked across the river to admire "Frenchman's Gardens." Michaux's Jersey gardens never reached the fullness of his Gallic dreams, but when

Andre returned to France in 1796 he left as a legacy in the Jersey gardens the Lombardy Poplar—the first planting in America of a tree which has achieved great popularity.

The Frenchman, as might be expected, had complete awareness of the necessity of beauty, but American nurserymen throughout the 19th Century had a more practical outlook. They grew fruit trees, grape vines and berry bushes. Ornamental shrubs? Only the wealthy went in for such foreign frippery—and, as often as not, shrubs served to hide rather than beautify the mansions and the croquet lawns.

NEVERTHELESS ornamental horticulture—shrubbery, greenhouses, exotic flowers and the rest—all stemmed from the great estates which rose in scenic Hudson County in pre-railroad days. As estate owners followed the railroads out to the mountains, greenhouse proprietors followed to where the wealthy lived and played.

Nearly all modern nursery and greenhouse establishments of the present can be traced back to estate gardeners of a century ago. There is no better example than the evolution of rose growing in Madison. One Mr. Treadwell started it by building a small greenhouse in 1856. Soon after, Judge Francis Lathrop built a rose range, and in 1865 he permitted his superintendent, James Littlejohn, to make the first shipment of roses to the blooming New York market.

Madison's ultimate rise to pre-eminence as "Rose City" can be attributed most directly to T. J. Slaughter, a wealthy cotton broker who



At Totty Floral Gardens, Madison, owner Helen Totty and foreman inspect the Mediator salmon pink rose she introduced in 1949.

bought the luxurious "Dellwood" estate in 1877. Mr. Slaughter acquired some greenhouses—and a far more precious asset named John N. May, greenhouse superintendent. Thanks to Mr. May, Mr. Slaughter shipped as many as 400,000 rose buds annually by 1886. Up and down the land they called him "King of the Amateur Florists" (although from this distance Mr. Slaughter seems to have been at least a semipro).

Commercial rose growing in Madison dates from Mr. Slaughter. Within 15 years, between 45 and 50 small greenhouses sprang up in Madison, all of them within a more-or-less near walk of the Railway Express office. Roses might have been considered an English symbol but you wouldn't have known it from the names of the keepers of those little Madison ranges in the late 1890s—McCarthy, Murphy, Ryan, Manning, Mitchell and many another son of Erin.

SOME of the biggest names in all rose history had begun to flower by 1900. John May, Slaughter's greenhouse keeper, set up his own business in Summit in 1880. Five years later he perfected the pure white Bride rose, acclaimed throughout the land.

At about the same time Louis M. Noe switched from growing practical peach trees to cultivating roses. He built greenhouses in 1884 and soon became the nation's foremost grower of the famed American Beauty. Mr. Noe's roses, with five-foot stems, sold for as much as \$2 apiece wholesale and served a world-wide market. He even shipped American Beauties to European royalty at Christmas time,

each rose stem stuck in a raw potato for moisture and each bud encased in Irish moss and tin foil to protect the incredibly fine blooms.

On came other vital rose names. James Littlejohn left Judge Lathrop in 1872 and built a range near Chatham station. Frank L. Moore built a big range in Chatham in 1885 to grow the Bridesmaid rose he had originated. L. B. Coddington in 1895 started in Murray Hill a range which is now one of New Jersey's largest, with roses given him by his former employer—a not uncommon beginning in those days. Often old employers loaned both rose stock and money to launch new rose enterprises.

PROBABLY the most vital rose personage of all came to New Jersey in 1896 to work for Arthur Herrington, superintendent of the Twombly estate in Florham Park. He was young Charles Totty, who first supervised the Twombly collection of orchids, the finest in America at that time. Mr. Totty bought a small range from James Hart in 1903 and shortly after leased the big Twombly greenhouses. Eventually Mr. Totty became an international name in flowerdom, and a leading sponsor of great flower shows.

E. B. Ellwanger's authoritative book, "The Rose," in 1898 declared that "roses under glass are nowhere brought to such perfection as in the neighborhood of Summit and Madison." Of the three most desired roses on the market at the turn of the century, two—(Bride, Bridesmaid) had been originated in Summit and Chat-

(Continued on Following Page)



Eucharist lilies under glass at the L. B. Coddington nurseries in Murray Hill. Flower is a favorite choice for bridal bouquets.

JERSEY PLANTS and FLOWERS

(Continued From Preceding Page)

ham and the third (American Beauty) had been brought to its finest perfection in Madison.

Not all flowers were grown in Madison, by any stretch of the imagination. New York's high society needed and demanded a wide variety of blossoms, although the rose far exceeded all in popularity. Nevertheless, as the 20th century dawned, several growers in Hightstown grew millions of violet blossoms under glass; William Ducknam, gardener on the James Estate in Madison, grew carnations five inches in diameter for the New York market; one South Jersey dahlia firm sent as many as 150,000 blooms daily to markets from New York to Chicago in 1904.

JERSEY CITY vied with Madison as a rose center for years, with the nearby New York market an obvious reason for greenhouses by the then beautiful Hudson River. Jersey City had flower know-how, too, reaching all the way back to Andre Michaux, and considerably enhanced by the arrival of Peter Henderson in 1847.

Mr. Henderson started a market garden business, added greenhouses, and quickly became important in serving New York buyers. He had five acres under glass before his death in 1890 and retailed vast quantities of cut flowers. Mr. Henderson established a noted seed business in 1871, but his greatest contributions to horticulture came from his widely used writings—including 175,000 personal letters and many books, chiefly one on gardening which ran through 41 editions.

One of Mr. Henderson's neighbors, young Julius Roehrs, left his post on an estate in Jersey City Heights in 1869 to build three small greenhouses in downtown Jersey City. His roses sold briskly until railroad yards and industry began to edge in on the old gardens of Hudson; in 1883 Mr.

Roehrs packed up, greenhouses and all, and moved out Paterson Plank road to Rutherford.

Mr. Roehrs still stuck to roses, despite the necessity of carting them into the city by trolley and ferry. Then, as Louis Noe and other Madison growers created the passion for American Beauty roses, Mr. Roehrs temporarily fell by the wayside. He turned to palms and "stove" (fancy or exotic, requiring warm temperatures) plants. Thus began a highly-successful business that by 1913 spread through 100 greenhouses and today encompasses 125 houses in the same spot where Mr. Roehrs located 72 years ago.

THIRTEEN years after Mr. Roehrs chose Rutherford, a young Dutchman named Lambertus Bobbink bought a small spot across the street to grow plants for nearby estates. Often, as he watched the ever-expanding Roehrs enterprise in 1896 and 1897, Mr. Bobbink thought, "Maybe someday some of the customers will stop to see what the little fellow across the street has."

An enterprising salesman named Fred Atkins called on Mr. Bobbink in 1898, and sold himself. Temporarily out of a job as a nursery salesman after the liquidation of the old Pitcher & Manda nursery in Short Hills, Mr. Atkins assured Mr. Bobbink he could sell his nursery stock. Mr. Bobbink knew horticulture, Mr. Atkins knew selling—and after Mr. Bobbink introduced this country's first field two-year-old budded roses in 1910, Bobbink & Atkins began a rapid rise to prominence.

Roses called the florists on and on, with nearly all of the two million dollars realized from flowers in 1899 coming from the fragrant, delicate rose buds. By then, nearly 500 florists made a living from beauty under eight million square feet of glass. Whoever is to cast a stone in scorn at the old days better regard that figure again; that was, and is, a lot of glass.

Dollars for beauty didn't reach many nurserymen at the turn of the century, since in 1899 less than \$350,000 was spent on shrubs. Indeed, horticulturists pleaded with even their brother farmers to pay some heed to beautifying their grounds—particularly, as one speaker at a State Horticultural Society meeting declared, if they were to keep their boys from "having their longings gratified at corner store and saloon."

They pleaded in vain, apparently. In 1904 a speaker at a Horticultural Society session complained bitterly that "a tree on a farm is only something to tie a horse to." One good reason checked the farmer's enthusiasm for shrubs; they were expensive, since with rare exception all landscaping plants came from abroad.

DISEASES and insects helped change the entire ornamental picture, particularly after the federal government in 1917 clamped down on the importation of nursery stock to keep out foreign insects. The rise of ornamental nurseries dated from that quarantine plus the far-sightedness of a small group of growers who organized the New Jersey Assn. of Nurserymen in 1915. The growers adopted a slogan, "It's not a home until it's planted," and set out to sell shrubs.

The quarantine forced many changes. Julius Roehrs Co., for example, had been importing plants from Europe by the boatload. Roehrs Co. revised its procedure radically, turned to growing plants for holidays and sturdy indoor plants to blend with indoor decorating motifs. The change-over made Roehrs the largest grower of indoor ornamental and foliage plants in the nation—with nearly 2,000 varieties of plants now grown in the Rutherford range.

Across the street, Bobbink & Atkins met the quarantine head-on too. Almost immediately the firm began growing the once-imported Belgian azaleas in East Rutherford and built up a national demand that now calls for more than one million Bobbink & Atkins azaleas—more than any other

grower in the world produces. The East Rutherford plant introduced its noted Azaleas Rutherfordians in 1928, an azalea now widely used for outdoor landscaping in California and Florida. Best known for azaleas, Bobbink & Atkins also produces great quantities of hardy shrubs and evergreens.

QUARANTINE or no, it made little difference to the rose growers of Madison, Chatham and Summit. Demands kept rising during the 1920s and greenhouses grew ever bigger and ever more substantial. Many greenhouses 65 feet wide and 600 feet long replaced the old houses which were 20 feet wide and seldom more than 200 feet long. Many of the old growers prospered mightily—men like Totty and Noe and Coddington—but some new and important names came before 1925, people like Joseph Ruzicka, Edward Behre, Aubrey Nash and others.

The free-spending swains of the 1920s bought roses in the best old traditions. More and more, however, the man who wanted to make a real impression went without lunch for a month and bought his beloved an orchid. Diamonds were a girl's best friend, but an orchid wasn't bad second choice.

Many an American grower worked to perfect orchids in this country. The exotic flower had been imported as early as 1838 and by 1858 Cornelius Van Voorst of Jersey City had gathered the finest collection in America. William De Forrest of Summit and Pitcher & Manda of Short Hills began producing orchids for the carriage trade before 1890, but all in all, for most people an orchid was something in an encyclopedia.

PITCHER & MANDA served a select clientele of private collectors before 1890 and about that time hired John E. Lager to hunt orchids in South America. Lager returned after three years with a brilliant collection, then in 1896 joined forces with Henry Hurrell in Summit to form Lager & Hurrell (still in business in Summit).

Off to the jungles went Mr. Lager

again. This time, 500 miles from civilization, he found a gold-powdered red orchid, unknown to botanists. He preserved the precious plant meticulously, only to have it mislaid in a chaotic seaport warehouse. When it was found again, the fabulous orchid had died—and none like it has ever been found again. Later, in 1908, Mr. Lager shipped home from Colombia the first all-white *Cattleya* of the *Gigas* species ever found in the native state.

A 1919 law restricting orchid importations of any grower to 400 plants annually threatened the industry. United States growers set about the tedious task of cultivating orchid plants from seed—an incredibly involved process. Discovery in 1922 of a solution called agar-agar, in which orchid seeds germinate rapidly and regularly, made large-scale orchid growing feasible.

Quick to take advantage of the new agar solution was Thomas Young of Middlesex, who had opened a small greenhouse near Bound Brook in 1904 to grow roses and gardenias. By 1927 Mr. Young was the largest grower of orchids in America and his development of the famed Canhamiana hybrid (which took 12 years to flower) was hailed everywhere. Mr. Young sold his range to large financial interests in 1929 and by 1940 the firm could boast production of "an orchid a minute."

Today, Thomas Young Orchids, Inc., produces between 800,000 and 1,000,000 orchids annually, about half the state's output—and enough to make the Middlesex concern the world's biggest producer of orchids. Orchid production is soaring in the state, with nearly 700,000 square feet of greenhouse glass devoted in 1955 to this Queen of Flowers—now as prominent at high school proms as it is at opening night at the Metropolitan.

FOR all practical purposes (which means the orchid is to be set aside for the moment), outdoor nurseries didn't really get under way in earnest until 1920—the first year sales of New Jersey nurseries topped one million dollars. Housing developments of the 1920s, even those where 25 feet of frontage served as a lot, stimulated sales. Nevertheless, it took the move to the country by both industry and home owner to catapult nurseries into importance.

The move began slowly sometime in the 1930s, with an occasional pioneering industry constructing a long low building on a slope in Union, Bergen or Morris counties. The modern lines screamed for softening of corners and some shade. In times gone by the owner of a nice home built a high hedge to screen off industry; the new industrial architecture often called for hedges to screen off unsightly houses nearby.

Home building, slowed by the depression and crippled by World War II, started its frenzied roll in 1946. Landscapers hitched their wagons to the rising star of government-guaranteed GI home loans and shrub sales boomed. Once under way, the pace accelerated. Jones might add a couple of spreading yews to the scraggly rhododendron and pathetic little juniper planted by his contractor. That meant

Smith and Baker on either side had to add yews too. Eventually picture windows began to look out on pictures of a sort.

Today between 6,500 and 7,500 New Jersey nursery acres are planted solidly in all kinds of landscaping aids—yews, arborvitae, junipers and a wide variety of evergreens; boxwood, laurel, rhododendron, andromeda, azaleas and numerous other broad-leafed evergreens; forsythia, lilacs, spirea and a host of other deciduous shrubs. Many of the nurseries are big, such as Princeton Nurseries with some 1,500 planted acres, Lovett's Nursery in Little Silver and Perkins-De Wilde nursery in Bridgeton. Among the unique nurseries Earle Dilatush of Robbinsville is the pioneer nursery-

can be had at lower costs. Nevertheless, offices and salesrooms remain in metropolitan centers, close to booming developments.

Sales of nursery products range between 8 and 10 million dollars annually in the state (and some estimates put the figure as high as 15 million dollars). Home development has been a major factor, but increased popularity of the "campus-type" industrial plant or research laboratory has also increased nursery sales greatly.

Another help to New Jersey nurserymen has been increased landscaping of new highways, with Garden State Parkway being an unparalleled example of the ornamentation of natural beauty. Nurserymen can't help but feel that increased highway beau-

It is said that when there is a surplus of flowers on the New York market a grower can't tell when he ships out his blooms whether he'll get back a check or merely a bill for his freight charges. Rutgers University has undertaken a marketing study and a similar study has been started by the United States Department of Agriculture, both encouraged by the New Jersey Florists Assn. and the Plant Growers Assn. Out of these may come some substitute for a flower marketing technique which dates back to the Gay Nineties.

Roses, long the major greenhouse cut flower crop, are now second to orchids in New Jersey. Nevertheless, the Madison-Chatham-Summit area still has one million rose plants under glass—plants enough to produce 25 million buds for nationwide markets every year. Potted plants, topped by foliage plants and azaleas, have also seen hydrangeas, poinsettias and African violets surge into demand.

AN example of changing times is evident at Madsen & Christiansen greenhouse range in Wood-Ridge, where the idea of selling potted poinsettias was pioneered. Madsen & Christiansen, like most growers, once sold cut poinsettias for Christmas, but the flowers didn't keep well. The Wood-Ridge experiments with the potted Christmas Star poinsettia proved highly successful; at Christmastime Madsen & Christiansen ships 75,000 potted poinsettias.

Similarly, African violets are a sign of the times. Most housewives grow one or two in the home and many a housewife grows scores or even hundreds of the colorful plants. An Atlantic City concern, Fischer Flowers, is known as the country's prime grower of African violets.

The last few years have seen a sharp upsurge in sales of perennial flower plants. Many of the intensive vegetable growers of Essex, Passaic, Bergen and Union counties now grow such perennials as pansies and mountain pinks and other flowering plants. Perennials give a quick income in the spring, before vegetable crops have had a chance to grow to marketing age.

ORNAMENTAL horticulture is important in every county in New Jersey. Floriculture is centered in the northeastern counties; New York is still the best flower market in the country, even in an age when many a buyer prefers his roses in a bottle rather than in bouquet. Nurseries, on the other hand, maintain about half their growing acreages in south Jersey. Florists and nurserymen serve wide areas; they fly orchids and roses thousands of miles and move nursery stock by truck 500 to 600 miles.

Today nursery stock and flowers account for twice as much in New Jersey farm dollars as the sum of all fruits, large and small. The future seems bright, particularly if times stay good. One thing man seldom puts aside in full-wallet times is ornamentation—and the day is still with us when an orchid or a dozen roses can work wonders. Ever has it been thus, ever will it be.



Orchids grown by Thomas Young, Inc., in Middlesex, world's largest producer, receive attention of Arthur Randolph, assistant grower.

man in the United States, dealing in holly—a native New Jersey tree now coming into its own as an ornamental.

MOST of the big nurseries sell only to the wholesale trade, but the biggest surge in nursery sales in the last 15 years has been due to the "landscape nursery." This is the nursery which grows its stock to salable size, plans a landscaping pattern and uses its own plants in carrying out the pattern for a home or an industry.

Not long ago, say 20 years ago, most nursery fields were located close to populous centers. Now, however, there is a trend toward growing stock in the broad south Jersey areas where everything—land, taxes, labor costs—

tification and industrial landscaping will in turn prompt ever-growing demands for plants by home owners. There is the strong feeling that nursery stock may have just begun to rise.

SOME flower growers, on the other hand, have been having trying times. Many of the old growers collapsed completely during the depression but sales during World War II and in the years immediately after V-J Day brought prosperity again. Right at the moment many flower growers are anguished. Fuel and labor costs are high, but above all there is strong reason to believe that most of their difficulties are occasioned by the antique marketing methods they employ.